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ABSTRACT

There is an assumption in most freshman composition classes that students have the cognitive level to be sensitive and receptive to problematic situations, to articulate the problems, and to formulate statements to set out lines of inquiry. This assumption is invalid when applied to the majority of students, and writing teachers can attest to having suffered through those students' banal prose. It is possible, however, to assess qualitatively the cognitive level of a group of students demonstrated through reading and writing assignments in which students read generally related stories, examine and evaluate ideas and principles, and work to discover concepts that can serve as controlling ideas or thesis statements. The students' thesis statements can be analyzed and categorized using a model of cognitive stages in concept development attributed to the work of Andrew Wilkinson and others in The Crediton Project. The stages or categories of cognitive measures are describing, interpreting, generalizing, and speculating, and when applied to student writing, they can be used to accurately place students in proper instructional settings. Writing teachers would do well to spend less time on teaching traditional paragraph structure that does little to improve the quality of students' thinking and more time on showing students what strategies they use when they think, teaching them to formualte and solve problems as effectively as possible. (AEA)

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Concept Development Through Reading and Writing

Instruction at the college level in composition has generally assumed that students have reached a level of cognitive development which permits them to operate reasonably successfully at the level of generalization. In fact, an overabundance of generalizations often characterizes student writing, reinforcing this general view. But rarely have researchers and teachers attempted to assess qualitatively the cognitive level demonstrated in the generalizations that are produced. A new model of assessment, proposed by Andrew Wilkinson and his colleagues at the University of Essex, now permits us to examine these thesis statement generalizations in ways that are useful both for writing administrators seeking placement criteria and classroom teachers seeking bases for evaluation of student writing that will lead to setting of instructional goals and strategies.

One researcher who has explored this problem is Andrea Lunsford who found in her study of basic writers that

> --their strategies, processes and products---leads [her] to believe that they have not attained that level of cognitive development which would allow them to form abstractions or conceptions. That is, they are most often unable to practice analysis and synthesis and to apply successfully the principles thus derived to college tasks.[1]

Several important questions are suggested by these findings: 1) Should concept attainment be a criterion for placement in college writing classes and determining instructional strategies? 2) If so, how can we best determine the level of concept attainment that our students have reached? 3) After these have been identified, what level of concept attainment should correspond

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with what level of instruction, that is, what instructional strategies should accompany each? 4) Can we justify spending significant amounts of time in writing classes on the development of cognitive processes? In other words, should this be a major priority in writing instruction given the limited amount of class time available?

The natural first question that arises relates to why concept attainment should be a criterion for placement in freshman writing classes. If we turn to the current research in reading theory, we can begin to formulate an answer. The importance of concept attainment in the reading process has long been recognized and in his book, Teaching Reading as Concept Development, George H. Henry[2] points out:

> Reading...is the use of the modes of analysis and synthesis within the medium of written or printed language. Although analysis of the single work has been the favorite mode of reading from ancient times and is the most prevalent form of reading in our schools today, the new logic[3] recommends the teaching of reading as synthesis. The purpose here is to show what of teaching of reading is entailed within the idea of reading as an act of synthesis, for understanding this relationship is necessary to the teaching of concept development. Reading for concept development may be defined as making one's way through printed and written language in such a manner as to seek out a number of relations and to put this growing set of relations into a tentative structure. [Henry's empasis] [4]

In this definition of concept development lies the rationale for using level of concept attainment as a criterion for placement in college writing classes. Much of the teaching of writing at the college level is built upon the assumption that freshmen come to composition classroom capable of seeking out a number of relations and that they can place these relations into a tentative structure. Richard Young, for example, believes that the

initial stage in the writing process moves from the recognition by a writer of a felt difficulty to a statement of the problematic situation followed by a statement of the unknown, i.e. what the writer needs to find out to eliminate the problematic situation.[5] He has described how the student is able to recognize the cause of the dissonance:

> To become an effective inquirer, it is essential that you develop sensitivity and receptivity to problematic situations. It is, of course, difficult to ignore some situations--air pollution, violence in the streets, and so on--but not all situations are so instrusive. Our reactions to a flawed theory or an imprecisely phrased statement may be more subtle: We may feel that something is not quite right but not be able to pinpoint the difficulty...it is the perceptive and knowledgeable person who most often has problems; it is the best student who sees the limitations of human understanding and the need for inquiry in every aspect of human affairs. [Emphasis added] [6]

I have no quarrel with this process, only with the underlying assumption that the student is independently able to articulate the problem clearly enough to formulate a statement that will set out the line of inquiry. Young has developed procedures to help the writer test the structure and content of his/her problematic statement but his procedures to help the student formulate the statement initially assume that the student is already operating at the levels of analysis and synthesis.

Young, Becker and Pike recommend that one way for the writer to arrive at a well-stated unknown is through "successively classifying and reclassifying it as a question of fact, of process and of relationships."[7] The point again is not that this is not a sound process, but rather that the underlying assumption continues to be that the students come to the task at a cognitive level appropriate to its being carried out with a reasonable degree of success.

But in order to carry out the tasks, the students will have to be able to make value judgments, engage in causation and probability decisions, logic and classification, to name just a few of the processes called for.

From quite a different perspective, the argument is often made that the justification for the teaching of the traditional five-paragraph paper is that writers, particularly those who are characterized as basic writers, need a definite structure to hang onto. But once again, let us examine the assumptions that underlie the belief that students can handle the operations required by this structure. The first premise is similar to Young's contention, that is that the student should initially be able to develop the controlling idea of his/her paper. Even Sheridan Baker acknowledges that this may present some problem, although he dismisses the concern rather cavalierly:

> You may wonder if it is not astoundingly presumptuous to go around stating theses before you have studied your subject from all angles, made several house-to-house surveys, and read everything ever written. A natural uncertainty and feeling of ignorance, and a misunderstanding of what truth is, can well inhibit you from finding a thesis. But no one knows everything. No one would write anything if he waited until he did. To a great extent, the writing of a thing is the learning of it.[8]

It does not appear to occur to Baker that there is a middle ground between "knowing everything" and "knowing nothing" at the starting point of the writing. The second assumption is that the processes required for development are accessible to the student, e.g. classification, comparison, example, etc. D'Angelo[9] believes that these paradigms can become so well-known and understood that the writer can internalize them and use them

effectively as bases for organizing his/her writing. But these systems of organization are not heuristic in leading to meaningful development and the actual papers produced by students following these models are the banal prose that has been boring freshman composition teachers for more years than we care to remember.

Because student writers do no more synthesizing than turning topic assignment questions into statement reformulations, the generalizations that they develop often induce no synthesis whatsoever. They have not brought together a number of differing ideas or sets of materials in order to formulate <u>new</u> statements indicating relationships among these materials heretofore unexplored. Some examples of typical responses to a task that asked students to "explain a problem of their own choosing" demonstrate the lack of synthesis produced:

> Smoking, besides being a habit, is also becoming a problem to many American smokers.
>
> Nuclear power is a problem now and will be a problem for years to come.
>
> A problem I am writing on is today's marriages. They seem to be a lot worse that they were years ago.[10]

None of these "thesis statements" indicates that the students have explored the topic in meaningful ways which will allow them to formulate hypotheses to be examined or relationships among disparate elements to be explored. The low level of generalization available to the writers leads them to formulate the empty thesis statements. These thesis statements bear witness to the low quality of the evidence that is likely to be cited in their support. In fact, students may be able to fill in the slots of a paradigm,

but the quality of the filler materials will illustrate the students' inability to handle either concrete or abstract developments of their poorly articulated governing statements.

If we wish to make our students understand that the purpose of writing is meaningful communication, then we must provide them with methods to derive meaningful content. And writing classes are the appropriate places to provide such instruction since this is where, as Baker stated, "the writing of a thing is the learning of it." Lee Odell has summarized this important argument:

> If we agree that our knowledge is subject to continual revision, it would seem that one of our main obligations is to help students understand how to engage in this revision and how to live satisfactorily with the uncertainty implicit in continual change. If this change is prompted by one's personal sense of disequilibrium, we ought to help students learn to identify as clearly as possible these areas of experience which cause some dissonance for them. If some of the activities in this process of achieving equilibrium are conscious and learnable, we ought to teach them; so far as we can, we ought to show students what strategies they use when they think and what they can do to think well. In short, we ought to teach students to formulate and solve problems as effectively as possible. [Emphasis added] [11]

The student examples cited above also lead directly to the second of the questions posed earlier, how can we best determine the level of concept attainment that our students have reached when they arrive in our writing classes? Clearly, no score on the SAT-Verbal or the Test of Standard Written English is going to be helpful.[12] We must at least begin with the premise that a writing sample will be produced by the student that will serve as the basis for the evaluation. The writing

task must then be carefully designed and administered so that it will give the writer an opportunity to display his/her level of concept development. It must be administered under conditions that will allow the writer the time necessary to reflect on the task so that he/she will be able to call into play the cognitive processes demanded. One way to do this is to announce the topic for the writing task at least one week before the writing itself is to be done, to allow the student to bring notes to the room where the writing will be done, but to ask for the writing itself under monitored conditions. This is not an ideal format, but it would at least encourage prior planning by the student as part of the process that will form the basis for the evaluation.

Lunsford has proposed that students be given data sets in the form of series of statements and then assigned tasks that will require them to analyze, generalize and abstract.[13] These are excellent instructional strategies for students who have been identified through some placement process as needing this type of instruction. The design which I am proposing here can be used first as a placement instrument that will allow us to separate those students who need formal instruction in concept development from those who do not, and secondly, as the basis for making instructional decisions.

Crucial to the assessment of concept development would be the existence of an instrument to describe or measure the level of achievement within a sample of student writing. Necessarily such an instrument would have to be built on a developmental model, identifying and characterizing various

stages in cognitive growth. Such an instrument exists within the Crediton Project model developed by Andrew Wilkinson and his colleagues at the University of Essex in the part of their model designated Cognitive Measures. Wilkinson describes the four sub-categories of the model for Cognitive Measures as follows:

> Describing. There is a move from labelling and naming, via simple statements and incomplete formulation, to reporting of a complete sequence.
>
> Interpreting. The development is from a simple explanation or inference or assessment to a deduction drawing on a series of (e.g. causal) links.
>
> Generalising. The baseline would be a generalised concrete statement, moving to a summation of a whole section, and thence to the generalisations implied by a classificatory system.
>
> Speculating. The movement here is from inadequate to adequate simple hypothesis at the statement level, via exploring and project [ing] at the discourse level, to controlled and extended theorising.[14]

On this model, students who have not achieved the level of "generalization" as it is characterized here would be understood to benefit from direct instruction in the processes of analysis and synthesis.

It may be helpful to illustrate the usefulness of the Wilkinson model through an analysis of two types of tasks: 1) a more traditional writing task and 2) a task that follows a reading-writing assignment. A paper generated through the first process, writing on a "problem to be explained," illustrates this first type:

> As everyone knows smoking is a big problem that exists in the world today. Doctors are always informing people that they should not smoke, even on all cigarette packs it states, "cigarette smoking is dangerous to your health." Doctors say it causes people to get an occasional

> cough that slowly becomes a constant cough. It also has been determined to cause cancer, emphysema, and nervousness from craving the nicotine in cigarettes. I heard on the radio their is a new kind of gum with nicotine in it to stop people from craving a cigarette when they can't have one. They also have the light cigarettes with less tar and nicotine, but people smoke twice as many. It also leaves a bad odor on cloths, hands and breath. Usually you can instantly tell if someone smokes or not. As I hope you can see smoking is definitely a problem that exists, what good comes from it.

This paper never moves from the Describing category to the Interpreting category because, although it presents several effects of cigarette smoking, there is no evidence presented to support these claims, nor are there any series of causal links which lead the reader to an appropriate deduction. Even within the Describing category, there is no movement toward reporting of a whole sequence. There are, instead, simply a series of assertions and even these are incompletely formulated.

This example illustrates the point made earlier that mastering the traditional paragraph structure will do nothing to improve the quality of the student's thinking. Rather, the student requires engagement with a series of tasks that will give him/her practice in the processes of analysis and synthesis so that the working hypothesis formulated will lead to development of ideas induced by a series of productive intellectual activities. Organization, thus, would grow organically from the material being presented, rather than being imposed from the outside onto the content.

A more complex task, involving both reading and writing, may serve better as an instrument useful for both placement and instructional planning. Such a task should be one that requires the student to consider at least

two or three short related readings and then to formulate a generalization of some sophistication that will require him/her to relate these readings in some meaningful way. Tasks of this kind have already been designed by reading researchers. For example, Henry cites one that might be given to a class that has read four stories in succession, each one making a certain impact. Then he suggests that students might be asked:

> What do they all mean as a total experience? The task as logic is: How could we put them all together? Synthesis is demanded by such a question?[15]

Such a task design might send a series of short readings to the participating students. They would be told to read the selections and consider some questions about them. Typical questions might include the following: What is the author of each selection saying? What is his/her main idea? Is the view of the author one that seems to be true? Why? If not, why not? Do alternative views exist? Has the author presented arguments supporting his/her views in the text or are there just assertions or conclusions stated? If the author presents an argument, what are the steps in the argument? Do the arguments follow in a logically valid way or is there mistaken reasoning?

Such a task design would direct the students to go through the process of analysis for each of the readings. The writing task would be designed to evoke a synthesis based on the readings. Through an evaluation of the written response, it would be possible to determine how successfully the students can at that point handle independently the processes of analysis and synthesis.

One such pilot project provided students with two essays broadly related by the conflict between apparent external success and personal internal

senses of failure.[16] Students were given a series of analytical questions (those just described), asked to respond to them for each essay, and to prepare notes for a paper on a topic which encouraged synthesis ("Views of Themselves: Winners or Losers?"). Analysis of the papers revealed a range of cognitive levels of operation which could be examined in terms of Wilkinson's sub-categories. I would like to illustrate the assignment of some of the students' thesis statements into these sub-categories:

> Describing: "In Richard Rodriguez's 'The Graduate Student Who Became a Chicano,' Rodriguez points out that adoption of another culture does in fact work for him. In 'A Diary of a Winner' by Liv Ullman, it is stated that an individual can become famous overnight."

Here the writer has interacted only with the literal surface meanings of the texts and has not drawn any inferences or assessments from the essays indicating the authors' dissatisfactions with their present life styles. Each essay is treated as a discrete unit with no integration or synthesis even attempted.

> Interpreting: "The authors of the two essays seem to have mutual feelings with regard to feeling out of place."

Here the writer is beginning to draw a deduction and to build a relationship between the two essays examined.

> Generalizing: "Essentially each of these authors are saying the same thing. That they had to sacrifice their cultural identity in order to be successful in their new environment."

Here the writer has demonstrated her ability to classify and characterize the underlying basis for the generalization, i.e. that success required the sacrifice of their cultural identities. The analysis of these thesis responses to the task demanding synthesis illustrates the effectiveness of

the Wilkinson category of Cognitive Measures as an instrument for assessing students needs in this area.

Since it is possible to assess the level of concept attainment reached through evaluation of writing samples with the Wilkinson model, we can turn next to the issue of determining what level of concept attainment should be equated with what level of instruction. This is a matter that must be responded to in a relativistic way. One major consideration would be the range of cognitive development that might be expected to appear with a given student population at a given institution. Another major consideration would be the range of instructional levels available to that population. My general recommendation would be that students whose writings can be characterized in the first two of the Wilkinson subcategories should be placed in an instructional setting prior to the regular freshman composition course. In the regular sections, instructors should be able to assume that the students are able to analyze reading selections and that they are able to formulate working hypotheses to guide their writing. These students will then indeed be operating at the level assumed by Young and the activities designed to capitalize on the invention process will be stimulating and meaningful.

In addition to placement considerations, the categories of the Wilkinson model can be used by teachers in classroom setting to assess the diagnostic papers they assign at the beginning of a semester. Regardless of whether the initial task is a writing-centered one or a reading-writing-centered one, the quality of the thesis statement on a conceptual level can alert the teacher to the level and type of instruction required for that group of students. Perhaps Lunsford's activities will be the appropriate starting

point; perhaps the type of reading-writing tasks I have described here will be helpful. In any event, it will be possible to make such determinations by an assessment of the cognitive level(s) at which the students are operating.

One potential objection to the setting of these processes of analysis and synthesis as major priorities in the composition class will be that there is only a limited amount of time available for writing instruction and that we ought to focus more directly on the features of writing itself, e.g. organization, diction, sentence structure, mechanics and the like. What I have been arguing essentially is that statement of thesis, paragraph development, sentence structure, etc. should not be taught through an atomistic approach, but rather that they should arise organically as they will when classroom instruction is geared to having students write papers that evolve directly out of their experiences with the processes of analysis and synthesis. By incorporating reading into our writing classrooms, we can help our students learn to examine and evaluate ideas and principles as they are advanced in the readings. If the readings are carefully organized so that they can be related in a variety of conceptual ways, each student can work actively to <u>discover</u> a concept which will provide him/her with a hypothesis or controlling idea worth writing about. A thesis thus developed will be content rich because it must express a synthesis of other ideas already explored and now related to each other. The statement of synthesis will direct the type of organization required to develop it more fully and the rich supporting details and examples will be available from the reading material.

Furthermore, the processes of speculation and hypothesis testing are

encouraged as the writer has to validate the statement of synthesis. Research by Britton et al[17] has vividly demonstrated how little speculative writing has been encouraged and valued under present systems of instruction. We have an opportunity while building concept attainment to encourage the "discovery" that Bruner tells us "favors the well-prepared mind."[18]

FOOTNOTES

[1]Andrea Lunsford, "Cognitive Development and the Basic Writer," College Composition and Communication, 41 (1979), 38.

[2]George H. Henry. Teaching Reading as Concept Development (Newark, DE: International Reading Association, 1974).

[3]Henry defines the new logic as the realization that thinking processes which occur within synthesis can be reduced to a set of teachable strategies or behaviors (3-4).

[4]Henry, 4.

[5]Richard Young, Workshop on "Problems and the Composing Process," Indiana University, Bloomington, IN, October 27, 1979.

[6]Richard E. Young, Alton E. Becker and Kenneth L. Pike. Rhetoric: Discovery and Change (New York: Harcourt, Brace and World, Inc., 1970), 91.

[7]Young, Becker and Pike, 94.

[8]Sheridan Baker. The Practical Stylist, Fourth Edition (New York: Thomas Y. Crowell Company, 1977), 5.

[9]Frank D'Angelo, "Paradigms as Structural Counterparts of Topoi," in Donald McQuade, ed., Linguistics, Stylistics and the Teaching of Composition (Akron, OH: L&S Books, 1974), 41-51.

[10]Taken from diagnostic papers written in Basic Skills Writing Classes, Indiana University, September 1979.

[11]Lee Odell, "Piaget, Problem Solving and Composition," College Composition and Communication, 24 (1973), 37.

[12]An evaluation of writing samples for placement purposes in Basic Skills Writing Classes at Indiana University undertaken in November 1979 showed no statistical correlation between the ratings of the writing samples and either the scores on the SAT-Verbal or the Test of Standard Written English.

[13]Lunsford, 45-46.

FOOTNOTES (continued)

[14]Andrew Wilkinson, Gillian Barnsley, Peter Hanna and Margaret Swan, "Assessing Language Development: The Crediton Project," Language for Learning, Vol. 1, No. 2 (June 1979), 65.

[15]Henry, 7.

[16]Papers written in Basic Skills and regular sections of freshman composition, Indiana University, January 1980.

[17]James Britton, Tony Burgess, Nancy Martin, Alex McLeod and Harold Rosen. The Development of Writing Abilities (11-18) (London: Macmillan Education, Ltd., 1975).

[18]Jerome S. Bruner, "Act of Discovery," Harvard Educational Review, Vol. 31, No. 1, 1961 reprinted in Jerome S. Bruner. Beyond the Information Given ed. by Jeremy M. Anglin (New York: W.W. Norton & Company, 1973), 402.